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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/511,392

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EXAMINER

WILLIAMS, THOMAS J

ART UNIT

PAPER NUMBER

3683

MAIL DATE

DELIVERY MODE

04/30/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/511,392	Applicant(s) KAHRS ET AL.	
	Examiner Thomas J. Williams	Art Unit 3683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made in the remarks filed January 18, 2008.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-3, 5, 6, 8-10, 15 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by US 3,519,805 to Throne-Booth.

Re-claims 1 and 2, Throne-Booth disclose a method for electro-dynamically braking a rail vehicle, comprising: regulating the acceleration (or deceleration) of the rail vehicle as a function of its velocity (see figure 1, wherein as the velocity and/or deceleration vary from the desired pattern, s shown by the broken lines, an increase or decrease in deceleration is carried out, column 5 lines 1-36), the acceleration (or deceleration) is regulated to a set point acceleration (as represented by the solid line) which is proportional to the velocity.

Re-claims 3 and 5, the drive torque is controlled within predefined limits by unit 24.

Re-claim 6, a vehicle value K is taken into consideration when determining deceleration.

Re-claims 8 and 15, a velocity signal is received from sensor 14.

Re-claim 9, computer 10 determines deceleration from travel and velocity signals, see column 2 lines 45-47.

Re-claim 10, Throne-Booth disclose a method for electro-dynamically braking a rail vehicle which is equipped with a drive, the method which comprises: measuring a velocity of the

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rail vehicle (using device 14); upon receiving a braking command, controlling an acceleration (or deceleration) of the rail vehicle as a function of the velocity by a closed-loop control process, and thereby regulating the acceleration to a set point acceleration (solid line in figure 1) that is proportional to the velocity.

Re-claim 16, Throne-Booth disclose a method for electro-dynamically braking a rail vehicle which is equipped with a drive, the method which comprises: measuring a velocity of the rail vehicle (from device 14); determining an acceleration of the rail vehicle by forming a first derivative of the velocity (see column 2 lines 45-47); controlling the acceleration of the rail vehicle by a closed-loop control process to a set point acceleration that is proportional to the velocity.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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6. Claims 4, 7 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Throne-Booth in view of US 4,270,716 to Anderson.

Re-claims 4 and 11, Throne-Booth fails to teach a PI controller used to control the torque. Anderson teaches a PI controller for providing a tractive effort request to the motor, see column 3 lines 24-26, as is common in the art. It would have been obvious to one of ordinary skill in the art to have provided the system of Throne-Booth with a PI controller as taught by Anderson, thereby providing a precise control signal for controlling the drive motor.

Re-claims 7 and 14, Throne-Booth fail to specify the vehicle values when determining any needed additional torque. Anderson teaches an apparatus taking into consideration vehicle mass (including passenger weight, see column 4 lines 59-68) when determining a required brake torque. It would have been obvious to one of ordinary skill in the art when having determined the drive torque in the system of Throne-Booth to have taken vehicle mass into consideration as taught by Anderson, thereby bringing the rail vehicle to a safe and steady stop.

Re-claims 12 and 13, the drive torque is controlled within predefined limits by unit 24; a vehicle value K is taken into consideration when determining deceleration.

Response to Arguments

7. Applicant's arguments, see paragraphs 2 and 3 page 4, filed January 18, 2008, with respect to the rejection(s) of claim(s) 1-5, 8-12, 15 and 16 under 35 U.S.C 102 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of US 3,519,805 to Throne-Booth who appears to disclose a system that increases and decreases a deceleration request as the actual vehicle deceleration deviates from a set point deceleration.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. McElhenny, Takata et al. and Han et al. each appear to disclose regulating the acceleration of the vehicle as a function of the velocity, wherein the acceleration is regulated to a set point acceleration.

9. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Thomas Williams whose telephone number is 571-272-7128. The examiner can normally be reached on Wednesday-Friday from 6:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Siconolfi, can be reached at 571-272-7124. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-6584.

TJW

/Thomas J. Williams/
Primary Examiner, Art Unit 3683

April 25, 2008